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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/753,392	01/09/2004	Mauro Zona	Q78899	6109

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EXAMINER

JOHNSON, VICKY A

ART UNIT PAPER NUMBER

3682

DATE MAILED: 04/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/753,392	Applicant(s) ZONA, MAURO	
	Examiner Vicky A. Johnson	Art Unit 3682	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 01 February 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) 11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 4-8, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zarifé (US 4,741,726) in view of Zeldman et al (US 3,878,734).

Zarifé discloses a toothed transmission belt (10), comprising a metal core coated with elastomer material, wherein said metal core comprises at least two mutually parallel and spaced apart metal strips (23), substantially coplanar to each other, arranged in the longitudinal direction of the belt (see Fig 3), and a plurality of metal cross-members (26), distributed according to a constant pitch in the longitudinal direction of the belt, which rigidly connect the two metal strips to each other and each whereof constitutes the core of a respective tooth of the toothed belt (see Fig 3).

Zarifé discloses a toothed transmission belt as described above but does not disclose the metal cross members each directly connected to both metal strips.

Zeldman et al teaches to attach the metal cross members (30) each directly connected to both metal strips (28).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the belt of Zarifé by attaching the cross members to the strips as taught by Zeldman et al in order to further strengthen the belt.

Re claim 2, Zarifé shows each cross-member of the aforesaid metal core, and consequently each tooth of the toothed transmission belt has a trapeze-shaped cross section (see Fig 3).

Re claim 4, Zarifé shows each cross member is constituted by a hollow section bar (see Fig 3).

Re claim 5, Zarifé shows the metal sheet constituting each cross member has slots traversed by the aforesaid metal strips (see Fig 3).

Re claims 4 and 6, the method of forming the device is not germane to the patentability of the device itself, and the bending operation and welding have not been given patentable weight, therefore Zarifé shows the metal strips are attached to the cores (26) through the elastomeric material (16).

Re claim 7, Zarifé shows each cross member of the metal core and consequently each tooth of the toothed transmission belt has a trapeze-shaped cross-section also in a plane that is orthogonal to the longitudinal direction of the belt, with the end surface of each tooth positioned in mutually converging inclined planes (see Figs 2 and 3).

Re claim 8, Zarifé shows the toothed surface of the belt has a layer of adhesion-proof coating over the rubber coating (col. 5 lines 21-31).

3. Claim 3 rejected under 35 U.S.C. 103(a) as being unpatentable over Zarifé (US 4,741,726) in view of Zeldman et al (US 3,878,734) and Takano (US 4,493,681).

Zarifé discloses the device as described above, but does not disclose each cross member of the metal core is constituted by a solid section metal bar.

Takano teaches each cross member of the metal core is constituted by a solid section metal bar.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Zarifé by having the metal core be a solid element as taught by Takano in order to extend the life of the belt.

4. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zarifé (US 4,741,726) in view of Zeldman et al (US 3,878,734) and Milton (US 5,417,617).

Zarifé discloses the device as described above, but does not disclose a gear wheel meshing with said toothed belt

Milton discloses a gear wheel (10) meshing with said toothed belt, wherein said wheel has a plurality of peripheral teeth (26) alternating with cavities (28) and two end flanges (22, 24) which constitute the ends of the cavities (see Fig 2).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Zarifé to include the gear wheel as taught by Milton in order to reduce cost (col. 1 lines 15-23).

Re claim 10, said end flanges of the gear wheel have a circumferential distribution of windows (44) corresponding to the ends of the cavities between the teeth

of the gear wheel, to prevent a contact between the inner surfaces of said flanges and the end surfaces of the teeth of the toothed transmission belt.

***Response to Arguments***

5. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vicky A. Johnson whose telephone number is (571) 272-7106. The examiner can normally be reached on Monday-Friday (7:00a-3:30p).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Ridley can be reached on (571) 272-6217. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Vicky A. Johnson 4/17/06  
Primary Examiner  
Art Unit 3682